

include written findings and conclusions and the reasons or basis therefor on all the material issues of fact, law, or discretion presented on the record. The findings, conclusions, and written decision shall be provided to the parties and made a part of the record. The initial decision shall become the decision of the Administrator without further proceedings unless there is an appeal to the Administrator or motion for review by the Administrator within 20 days of the date the initial decision was filed.

(2) On appeal from or review of the initial decision the Administrator shall have all the powers which he would have in making the initial decision including the discretion to require or allow briefs, oral argument, the taking of additional evidence or the remanding to the Presiding Officer for additional proceedings. The decision by the Administrator shall include written findings and conclusions and the reasons or basis therefor on all the material issues of fact, law, or discretion presented on the appeal or considered in the review.

**§§ 86.1854-86.1859 [Reserved]**

**§ 86.1860-04 How to comply with the Tier 2 and interim non-Tier 2 fleet average NO<sub>x</sub> standards.**

(a) The fleet average standards referred to in this section are the corporate fleet average standards for FTP exhaust NO<sub>x</sub> emissions set forth in: § 86.1811-04(d) for Tier 2 LDV/Ts and MDPVs (0.07 g/mi); § 86.1811-04(l)(3) for interim non-Tier 2 LDV/LLDTs (0.30 g/mi); and, § 86.1811-04(l)(3) for interim non-Tier 2 HLDT/MDPVs (0.20 g/mi). Unless otherwise indicated in this section, the provisions of this section apply to all three corporate fleet average standards, except that the interim non-Tier 2 fleet average NO<sub>x</sub> standards do not apply to a manufacturer whose U.S. LDV/T and MDPV sales are 100% Tier 2 LDV/Ts and MDPVs.

(b)(1) Each manufacturer must comply with the applicable fleet average NO<sub>x</sub> standard, or standards, on a sales weighted average basis, at the end of each model year, using the procedure described in this section.

(2) During a phase-in year, the manufacturer must comply with the applica-

ble fleet average NO<sub>x</sub> standard for the required phase-in percentage for that year as specified in § 86.1811-04(k)(1), or for the alternate phase-in percentage as permitted under § 86.1811-04(k)(6).

(c)(1)(i) Each manufacturer must separately compute the sales weighted averages of the individual NO<sub>x</sub> emission standards to which it certified all its Tier 2 vehicles, interim non-Tier 2 LDV/LLDTs, and interim non-Tier 2 HLDT/MDPVs of a given model year as described in § 86.1804(l)(2).

(ii) For model years up to and including 2008, manufacturers must compute separate NO<sub>x</sub> fleet averages for Tier 2 LDV/LLDTs and Tier 2 HLDT/MDPVs.

(2)(i) For model years up to and including 2008, if a manufacturer certifies its entire U.S. sales of Tier 2 or interim non-Tier 2 LDV/LLDTs or interim non-Tier 2 HLDT/MDPVs, to full useful life bins having NO<sub>x</sub> standards at or below the applicable fleet average NO<sub>x</sub> standard, that manufacturer may elect not to compute a fleet average NO<sub>x</sub> level for that category of vehicles. A manufacturer making such an election must not generate NO<sub>x</sub> credits for that category of vehicles for that model year.

(ii) For model years after 2008, if a manufacturer certifies its entire U.S. sales of Tier 2 vehicles to full useful life bins having NO<sub>x</sub> standards at or below 0.07 gpm, that manufacturer may elect not to compute a fleet average NO<sub>x</sub> level for its Tier 2 vehicles. A manufacturer making such an election must not generate NO<sub>x</sub> credits for that model year.

(d) The sales weighted NO<sub>x</sub> fleet averages determined pursuant to paragraph (c) of this section must be compared with the applicable fleet average standard; 0.07 g/mi for NO<sub>x</sub> for Tier 2 LDV/Ts and MDPVs, 0.30 g/mi for NO<sub>x</sub> for interim non-Tier 2 LDV/LLDTs, and 0.20 g/mi for NO<sub>x</sub> for interim non-Tier 2 HLDT/MDPVs. Each manufacturer must comply on an annual basis with the fleet average standards by:

(1) Showing that its sales weighted average NO<sub>x</sub> emissions of its LDV/LLDTs, HLDT/MDPVs or LDV/Ts, as applicable, are at or below the applicable fleet average standard; or

(2) If the sales weighted average is not at or below the applicable fleet average standard, by obtaining and applying sufficient Tier 2 NO<sub>x</sub> credits, interim non-Tier 2 LDV/LLDT NO<sub>x</sub> credits or interim non-Tier 2 HLDT/MDPV NO<sub>x</sub> credits, as appropriate, and as permitted under § 86.1861-04.

(i) Manufacturers may not use NMOG credits generated under the NLEV program in subpart R of this part to meet any Tier 2 or interim non-Tier 2 NO<sub>x</sub> fleet average standard.

(ii) Tier 2 NO<sub>x</sub> credits may not be used to meet any fleet average interim non-Tier 2 NO<sub>x</sub> standard except as permitted by § 86.1860-04(e)(1).

(iii) Interim non-Tier 2 NO<sub>x</sub> credits may not be used to meet the Tier 2 fleet average NO<sub>x</sub> standard.

(iv) Interim non-Tier 2 NO<sub>x</sub> credits from HLDT/MDPVs may not be used to meet the fleet average NO<sub>x</sub> standard for interim non-Tier 2 LDV/LLDTs, and interim non-Tier 2 credits from LDV/LLDTs may not be used to meet the fleet average NO<sub>x</sub> standard for interim non-Tier 2 HLDT/MDPVs.

(e) (1) Manufacturers that cannot meet the requirements of paragraph (d) of this section, may carry forward a credit deficit for three model years, but must not carry such deficit into the fourth year. When applying credits to reduce or eliminate a deficit under the fleet average standard for interim LDV/LLDTs or interim HLDT/MDPVs, that has been carried forward into a year subsequent to its generation, a manufacturer may apply credits from

Tier 2 LDV/LLDTs or Tier 2 HLDT/MDPVs, respectively, as well as from the appropriate group of interim vehicles. A manufacturer must not use interim credits to reduce or eliminate any NO<sub>x</sub> credit deficit under the Tier 2 fleet average standard.

(2) A manufacturer carrying a credit deficit into the third year must generate or obtain credits to offset that deficit and apply them to the deficit at a rate of 1.2:1, (i.e. deficits carried into the third model year must be repaid with credits equal to 120 percent of the deficit).

(3) A manufacturer must not bank credits for future model years or trade credits to another manufacturer during a model year into which it has carried a deficit.

(f) *Computing fleet average NO<sub>x</sub> emissions.* (1) Manufacturers must separately compute these fleet NO<sub>x</sub> averages using the equation contained in paragraph (f)(2) of this section:

(i) Their Tier 2 LDV/LLDT and Tier 2 HLDT/MDPV fleet average NO<sub>x</sub> emissions for each model year through 2008;

(ii) Their combined Tier 2 LDV/T and MDPV fleet average NO<sub>x</sub> emissions for each model year after 2008;

(iii) Their interim non-Tier 2 LDV/LLDT fleet average NO<sub>x</sub> emissions for each model year through 2006; and

(iv) Their interim non-Tier 2 HLDT/MDPV fleet average NO<sub>x</sub> emissions for each model year through 2008.

(2) The equation for computing fleet average NO<sub>x</sub> emissions is as follows:

$$\frac{\sum (N \times \text{NO}_x \text{ emission standard})}{\text{Total number of vehicles of the appropriate category (e.g., all LDV/Ts and MDPVs, or interim non-Tier 2 HLDT/MDPVs, etc.) sold including HEVs and ZEVs}}$$

Where:

N = The number of vehicles sold in the applicable category that were certified for each corresponding NO<sub>x</sub> emission bin. N must be based on vehicles counted to the point of first sale.

Emission standard = The individual full useful life NO<sub>x</sub> emission standard for each bin for which the manufacturer had sales.

(3) The results of the calculation in paragraph (f)(2) of this section must be rounded as required by § 86.1837-01.

(4) When approved in advance by the Administrator, the numerator in the equation in paragraph (f)(2) of this section may be adjusted downward by the product of the number of HEVs from each NO<sub>x</sub> emission bin times a HEV

NO<sub>x</sub> contribution factor determined through mathematical estimation of the reduction in NO<sub>x</sub> emissions over the test procedure used to certify the HEVs. The reduction in NO<sub>x</sub> emissions must be determined using good engineering judgement and reflect the relation in actual full useful life NO<sub>x</sub> emissions to the full useful life NO<sub>x</sub> standards for the certification bin applicable to the vehicles. The Administrator may require that calculation of the HEV NO<sub>x</sub> contribution factor include vehicle parameters such as vehicle weight, portion of time during the test procedure that the HEV operates with zero exhaust emissions, zero emission range, NO<sub>x</sub> emissions from fuel-fired heaters and NO<sub>x</sub> emissions from electricity production and storage.

(g) *Additional credits for vehicles certified to 150,000 mile useful lives.* (1) A manufacturer may certify any test group to an optional useful life of 15 years or 150,000 miles, whichever occurs first.

(2)(i) For any test group certified to the optional 15 year/150,000 mile useful life, the manufacturer may generate additional NO<sub>x</sub> credits, except as prohibited in paragraph (g)(3) of this section.

(ii) The manufacturer must calculate these extra NO<sub>x</sub> credits, where permitted, by substituting an adjusted NO<sub>x</sub> standard for the applicable NO<sub>x</sub> standard from the full useful life certification bin when it calculates the applicable fleet average NO<sub>x</sub> emissions by the procedure in paragraph (f) of this section. The adjusted standard must be equal to the applicable full useful life NO<sub>x</sub> standard multiplied by 0.85 and rounded to one more decimal place than the number of decimal places as the applicable full useful life NO<sub>x</sub> standard.

(3) A manufacturer electing not to comply with applicable intermediate life standards as permitted under § 86.1811-04(c)(4) may not generate additional credits from vehicles certified to a useful life of 15 years/150,000 miles; except that, for bins where such intermediate life standards do not exist or are specifically deemed to be optional in § 86.1811-04(c)(4), the manufacturer may generate additional NO<sub>x</sub> credits

from vehicles certified to a useful life of 15 years/150,000 miles.

(h) *Additional credits for vehicles certified to low bins.* A manufacturer may obtain additional NO<sub>x</sub> credits by certifying vehicles to bins 1 and/or 2 in model years from 2001 through 2005 subject to the following requirements:

(1) When computing the fleet average Tier 2 NO<sub>x</sub> emissions using the formula in paragraph (f)(2) of this section, the manufacturer may multiply the number of vehicles certified to bins 1 and 2 by the applicable multiplier shown in Table S04-11 when computing the denominator in the formula. These multipliers may not be used after model year 2005. The table follows:

TABLE S04-11—MULTIPLIERS FOR ADDITIONAL TIER 2 NO<sub>x</sub> CREDITS FOR BIN 1 AND 2 LDV/TS

Bin	Model year	Multiplier
2	2001, 2002, 2003, 2004, 2005	1.5
1	2001, 2002, 2003, 2004, 2005	2.0

(2) Optionally, instead of the process described in paragraph (h)(1) of this section, when computing Tier 2 NO<sub>x</sub> credits using the formula in § 86.1861-04(b)(1), the manufacturer may multiply the number of vehicles certified to bin 1 and bin 2 by the applicable multiplier shown in Table S04-11 in paragraph (h)(1) of this section when computing the "Total number of Tier 2 Vehicles Sold, Including ZEVs and HEVs". These multipliers may not be used after model year 2005.

[65 FR 6866, Feb. 10, 2000, as amended at 66 FR 19310, Apr. 13, 2001]

**§ 86.1861-04 How do the Tier 2 and interim non-Tier 2 NO<sub>x</sub> averaging, banking and trading programs work?**

(a) *General provisions for Tier 2 credits and debits.* (1) A manufacturer whose Tier 2 fleet average NO<sub>x</sub> emissions exceeds the 0.07 g/mile standard must complete the calculation at paragraph (b) of this section to determine the size of its NO<sub>x</sub> credit deficit. A manufacturer whose Tier 2 fleet average NO<sub>x</sub> emissions is less than or equal to the 0.07 g/mile standard must complete the